Martin Garbus, Esq. (MG 6261) Edward Hernstadt, Esq. (EDWARD HERNSTADT 9569) FRANKFURT, GARBUS, KLEIN & SELZ, P.C. 488 Madison Avenue New York, New York 10022 (212) 826-5582

Attorneys for Defendant Eric Corley a/k/a EMMANUEL GOLDSTEIN

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

UNIVERSAL CITY STUDIOS, INC.,
PARAMOUNT PICTURES CORPORATION,.
METRO-GOLDWYN-MAYER STUDIOS INC.,
TRISTAR PICTURES, INC., COLUMBIA
PICTURES INDUSTRIES, INC., TIME WARNER
ENTERTAINMENT CO., L.P., DISNEY
ENTERPRISES, INC., and TWENTIETH
CENTURY FOX FILM CORPORATION,

Plaintiffs,

- against -

SHAWN C. REIMERDES, ERIC CORLEY a/k/a "EMMANUEL GOLDSTEIN" and ROMAN KAZAN,

00 Civ. 0277 (LAK)

DECLARATION OF JOHN
GILMORE IN OPPOSITION
TO PLAINTIFFS' MOTION
TO MODIFY THE
PRELIMINARY INJUNCTION
AND IN SUPPORT OF
DEFENDANTS' CROSSMOTION TO VACATE THE
PRELIMINARY INJUNCTION

Defendants

I, JOHN GILMORE, declare under penalty of perjury that the foregoing is true and

correct:

1. I am a computer scientist and entrepreneur in San Francisco, California and submit this affidavit in my personal capacity.

EXHIBIT

CCC

FGKS: 107397.1 04/18/00

11560.00200

- 2. I have been working in computers since 1972, as a programmer, designer, quality assurance engineer, writer, manager, and executive. I have been involved in computer security since 1980 and in encryption since 1984. My Curriculum Vitae is attached hereto as Exhibit A.
- 3. In 1981, I was the fifth employee at Sun Microsystems, which has since grown into one of the top ten computer companies in the world. There I wrote firmware, handled hardware/software integration, tested hardware designs, and worked on computer security and electronic mail, both for their products and for their internal network.
- 4. In 1989, with two partners, I co-founded Cygnus Support, a small business dedicated to providing commercial support for free software, largely in the embedded systems market. It has grown from 3 employees to approximately 180, and was sold in October 1999 to Red Hat, Inc. The company's main product, the GNU programmer tools, is given away without cost and without major restrictions on modification or redistribution. Cygnus's revenues of about \$20 million a year are almost all from contracts to support or develop this freely available software. Cygnus pioneered this "open source" business model for its intellectual property licensing, a model which has become fashionable ten years later.
- 5. In 1990, I co-founded the Electronic Frontier Foundation (EFF), a nonprofit which defends civil liberties in cyberspace. The foundation continues to exist today, and is providing some of the legal defense in this case. I serve on its Board of Directors and am currently its interim Executive Director.
- 6. In 1992, I co-founded the Cypherpunks, an informal educational and advocacy group devoted to advancement of privacy and security through greater knowledge and deployment of encryption. The group has been meeting monthly in the San Francisco area since

then, maintains several active Internet mailing lists reaching several thousand people, and has spawned similar groups in other areas. Many students and computer scientists who first learned of encryption through the cypherpunks have started encryption companies, become famous through their encryption research, or begun their own civil rights efforts as a result.

- 7. In 1996, I started a project at EFF to create a "DES Cracker," a custom-designed computer which can recover the key to a message encrypted in the Federal "Data Encryption Standard" in about a week. I led the project, assisted in the chip design, wrote much of the software for the project, edited and wrote major parts of the book. We published the full design through a major book publisher, in the public domain, so that anyone could reproduce it for verification. The purpose of the project was to publicly demonstrate that the DES is easy to crack so that people would stop believing incorrect government statements that DES provides good privacy. The project was successful, and as one result the National Institute of Standards and Technology (NIST) began an "Advanced Encryption Standard" effort to replace DES, which is still ongoing. This effort also won me the "Public Policy Award" from RSA Data Security at their annual conference, and made the front page of the New York Times.
- 8. I comment from the perspective of someone who has been active in the fields of encryption; one who has created and appreciates the value of intellectual property; and one who understands and has achieved success in business.

There Are Many Legitimate Uses for the Software at Issue

9. There are a number of legitimate and legal reasons why Linux users (and, indeed, anyone) might wish to access or copy the information on a DVD that they have purchased. First and foremost is that they have purchased the DVD and have the right under the copyright laws to

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make certain uses of the information on it. The copyright holder of the material on the DVD has been compensated; the toll has been paid; the user is a consumer, not a thief.

- Under the name "region coding," the DVD industry has used its capability to create subsets to divide the world into seven regions and contracted to restrict the DVD players sold in each region to only play DVD discs intended to be sold in that region. The region coding system is not inherent in or necessitated by the design of the encryption system at issue, but is created by how the secret keys are administered. I believe that the DVD industry designed and implemented the region coding system in order to restrain global trade in DVD discs, so they can charge differential prices in different regions, and so that the release of particular movies can be delayed in particular markets, for the benefit of theater owners and the companies who rent them movies. By way of clarification, region coding means that a consumer in England legally using the Internet could legally purchase a newly released DVD from a United States retailer, legally have the DVD mailed to England, but will not be able to play the DVD at home.
- DVD discs in any "region" does not violate any right or privilege available under law to the copyright owner of the movie on the disc. First, the consumer has purchased the DVD and the copyright owner will receive all appropriate royalties arising from such purchase; second, "code-free" consumer DVD players already exist and offer the same capability. The region coding system is, I believe, no more than a business strategy that controls when and how consumers who have legally purchased DVDs can view the DVDs they own.
 - 12. Another legitimate use of or related to DeCSS is to change the video into a format

chosen by its owner, or to "space-shift" it to a more convenient physical location. It is my understanding that the owner of a music CD is free under the copyright laws to copy it onto a tape cassette to play it in her car (both a format-shift from digital CD to analog tape, and a space-shift from her home to her car). Copying a DVD to a videotape so that can be played on the kids' VCR, or copying its soundtrack onto a cassette tape or recordable CD so it can be heard in the cor, is the equivalent of copying a CD to a tape cassette. The legitimate owner of a DVD is free under the copyright laws to copy it onto another medium or location of their choice. This type of legitimate format- or space-shifting is the equivalent of the legitimate time-shifting that was key in the Betamax decision.

postman delivering a letter, convert it into a file format that her web browser can play, and a size that fits in a small comer of her screen, and cause her computer to display the clip whenever she get a new email message. Or she might only have a DVD drive on the computer in her home office, but wish to watch the DVD with her family, on the computer or WebTV in the den, using the house's local area network. The software tools to do this today on Linux are not readily available, or are too hard for an ordinary person to use, but the Linux development community is actively working on improving them, and the software at issue in this case is a key component. The ability to read, understand, and publish the DeCSS software, and the principles at issue in this case, are key components in the Linux community's ability to build and publish such improved software tomorrow. I believe that the Betamax case sends a clear message from the Supreme Court that if a device has any substantial non-infringing uses, it is legal to possess and distribute. Plaintiffs seek to drive Defendants into a Catch-22, by claiming that a preliminary

piece of software has no substantial non-infringing uses because those uses haven't been built into it yet. If they succeed, the court will make it illegal to build a more complete piece of software even if it does have substantial non-infringing uses, because the information needed to build such software will have been suppressed by the court's decision.

- 14. The DeCSS software for Windows, and the similar "readdvd" software for Linux, can be used to copy compressed video images from a DVD disc onto a hard drive. There are many legitimate reasons to make such copies.
- 15. One major reason is to allow Linux developers and users to watch their DVDs on their own computers. Compressed video image files, which DVD discs contain, are not readily visible to humans. A program is required to display the file on the screen, allow the user to fast-forward or rewind through it, etc. Writing such a program is not a trivial exercise, not only because of the complexity of the image compression, but also because the program must be fast, or it will not be able to play back the video in "real time".
- 16. The Linux developers whose web sites are targeted by this case were in the process of writing such a program. Pieces of the program already exist, and they work to some extent, but they were being constantly refined to eliminate outright errors, handle more different kinds of compression, and to speed up the display so that it could keep up on ordinary personal computers.
- 17. In order to test and refine a program for displaying compressed video images, one must have a compressed video image to try to display with it. Once a single image has been successfully displayed, it's time to try the program on several other images. Once it works on several images on the original author's computer, then it's time to try it on the computers of

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several other volunteers around the world, and on their choice of compressed image files. By gradually expanding the circle of testing and repair, a robust and stable program results.

- 18. It is certainly possible to test such a program with compressed video image files from sources other than DVD discs. I believe the existing Linux programs for displaying these files (such as mpeg2player, xanim, etc) were originally written and tested using other files. But for such a program to be useful to the community in general, it must work well with compressed video image files that come from ordinary commercial DVD discs, since that is the way that most ordinary computer users are likely to have compressed video images in their computers. The programmers cannot tell whether their program works on a DVD image without extracting one and trying it. And whenever their program falls to properly display a DVD image, they must have access to that image, to examine its encoding in detail, so they can reproduce the problem themselves, determine why the program fails to handle it properly, craft a proposed change to the program, and then test that the change actually fixes the problem and doesn't introduce any other problems.
- 19. In all of the above cases, the programmers would be using commercial DVDs which they have purchased or otherwise have the right to use; no piracy involved, and nobody's copyrights are violated.
- 20. I believe that the eventual goal of the Linux programmers and software distributors targeted by this case is to evolve their software so that a DVD disc can be played on the computer screen merely by inserting it into the DVD reader slot on a personal computer that runs Linux. Such an eventual use of software derived from DeCSS or readdvd would be completely legitimate and would not infringe any copyrights.

DeCSS Presents No Real or Viable Threat of "Piracy" or Commercial Copying

- Due to the huge size of the files involved, making a verbatim copy of a DVD is 21. impossible in essentially all easily transportable media commonly available today on personal computers. The DVD format was invented and deployed to hold an enormous amount of information, at least 8.5 gigabytes (8,500,000.000 bytes) of data, while the largest common personal computer writeable media can only hold I gigabyte (Jaz drives). More than eight gigabytes of data can be written on various kinds of computer tapes, but the blank tapes cost from \$15-50 each (depending on the type), as much or more than the original \$15 DVD. Moreover, I know of no software for playing DVD movies from computer tapes today. But even if such software existed, playing such a movie directly from a tape would lose the interactive characteristics of the original DVD, unless it was first read onto a hard drive. The permanently installed hard drives commonly used in PCs can only hold 5, 10, or 20 gigabytes; 40 at the high end. This means that if a person wished to make a full copy of a DVD disc on their computer, the only place they could put it would be on their hard drive. Thus a consumer could store several movies on her home-PC hard-drive, but would have not feasible way of selling it or doing anything with the movies other than viewing them. Using the Internet to send or sell copies of stored movies is particularly unreasonable: uploading a single gigabyte over a 56K modem would take about 40 hours, so an entire DVD would take many days. The sheer bulk of the material makes it impractical for consumers to "pirate" DVDs using commonly available equipment.
- 22. There are four recordable DVD formats, all of which are niche media. Most are incompatible with ordinary DVD players, and with each other. They each hold different amounts

of data, from 2.6 gigabytes, 3.95 gigabytes, to 5.4 gigabytes so some shorter movies would fit on all of them. Most of these formats (DVD-R, DVD-RW, DVD-RAM, and RW) are not actually on sale yet, they've merely been preannounced. DVD-RAM has been out for a year, and its drives cost from \$300-1000. But its discs only hold 2.6GB, cost \$14 to \$35, and are incompatible with everything else. There is a way to record twice as much data on double-sided DVD-RAM discs in special cartridges, but you have to flip them over to access the second side, like vinyl record albums. The available DVD-R recorder drives cost \$3500-\$5200. Blank recordable media for DVD-R are more expensive than buying pre-recorded DVDS.

- 23. There is no incentive to copy a \$15 DVD onto a \$30-\$60 blank DVD-R, rather than buying a second original at \$15. All of these recordable DVD formats are niche markets, because most computer buyers are waiting until a truly DVD- compatible recordable format comes out, rather than buy an expensive drive that only writes on media which will be obsolete in a few years.
- 24. Assuming that the advance of technology produces a recordable-DVD drive which uses affordable media and is readable on ordinary DVD drives, and that the courts are not used to keep such drives and media off the market, we then have another clearly legitimate use: backups of purchased DVD discs. It is legitimate to make a personal copy of purchased copyrighted material, to protect against the accidental (and eventually inevitable) loss or destruction of the original. Any household with children has probably already encountered this problem with other existing fragile media, such as cassette tapes, CDs, or VHS video tapes.
- 25. Also assuming a future large, cheap, and compatible recording medium, another legitimate use is to mix scenes from various DVD discs onto a single disc. A Bogart fan might

produce a DVD which contains ten of their favorite Bogart scenes, in the same way that cassette users compose tapes of their favorite songs by one or more artists, holding their choice of selections in their choice of order. A music fan might contrast several video renditions of the same song, or show the evolution of a band over the years. I believe that it is completely legal for individuals to create and enjoy such compilations under copyright law's Fair Use Privilege that allows for personal noncommercial use.

Dated: May 2, 2000 San Francisco, CA

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Personal web page: http://www.toad.com/gnu

SUMMARY OF EXPERIENCE

Founder of several very successful startup companies. Member of many for-profit and non-profit boards of directors internet pioneer; founded early ISP; started "alt" newsgroups. Free software pioneer; wrote GNU tar; first free sw support company encryption policy leader; created DES cracker 4.5 years hardware/software interface at Sun Microsystems 4 years systems programming in IBM System/370 Assembler 10 years applications and systems programming in C. Many years of business management experience many years of independent consulting design and maintenance on large and small systems know how to get things done and push them out the door.

1995-2000 Entrepreneur, San Francisco

Currently pursuing my own projects. Leading FreeS/WAN project to secure Internet traffic from wiretapping. Elected to Board of Directors of the Internet Society, 1997-2000. Elected to Board of Directors of the Usenix Association, 2000-2002. Joined Board of Directors of C2net Software, 1998-. Joined Board of Directors of Codeweavers, 2000-. Joined Board of Directors of the Red Hat Center, 1999-.

1990- Electronic Frontier Foundation

Co-founded civil rights foundation dedicated to preserving civil rights and educating about civil responsibilities around computers and the Internet. Member of Board of Directors, 1990-. Leader on encryption policy issues; instigated Bernstein v. US case which overturned US encryption export policy; led team to build DES cracker which exposed government manipulation of security standards. Interim Executive Director, 2000.

1990-1996 The Little Garden (TLGnet), San Francisco

A medium-sized Internet Service Provider in the San Francisco Bay Area, now merged into Verio. We mostly sold T1 and 56K Internet connections to businesses. We were distinguished from many other early commercial providers by our common-carrier attitude: "You are free to resell the service that we provide to you, and we will not censor it." This enabled a whole crop of smaller resellers in various locales to buy from us and offer other services to the public (like dialup Internet connections). These resellers contributed to our volume of Internet traffic, and enabled us to provide higher quality service at lower prices. TLGnet was sold to Best Internet Communications in July, 1996. It eventually became part of Verio.

1989-95 Cygnus Solutions, Palo Alto

Founded company offering commercial support for free software. Grew company from 3 founders to 12 full-time people, \$0 to \$800K in sales, in one year, with no debt or venture funding. Five years later, sales approached \$10M with 70 employees, still profitable, still without venture funding. Handled planning, project management, technical design and implementation, recruiting, and generalist roles. Left company in 1995, left board in 1996. It accepted venture capital in 1996. In 1999, with sales approaching \$25M, we sold the company to Red Hat Inc for \$600 million.

1988-90 Grasshopper Group, San Francisco

Founded a company to support the NeWS window system, which provides a networked graphical user interface using PostScript. Produced and sold MacNews, running under A/UX on Macintoshes. Produced prototype X/NeWS terminal using Sun-3/50 hardware. Handled planning, personnel, finance, and technical design and implementation for the partnership.

1985-90 Independent Consultant, San Francisco

Designed and diagnosed hardware designs for Sun, including SPARCstation-1 and PARCstation-2. Co-founded Usenet "alt" newsgroups. Creation, collection, maintenance, and distribution of free software for Unix, with the Sun User Group and Free Software Foundation. Occasional consulting work. Elected to Sun User Group board of directors. Early design work on a dynabook product.

1982-85 Sun Microsystems, Santa Clara and Mt. View, CA

Architecture, design, implementation, and debugging of Sun Workstations as the fifth employee. Wrote and maintained bootstrap and diagnostic ROMs for the Sun-1, Sun-2, and Sun-3. Debugged first prototypes of Sun-1 and Sun-2, working with the hardware designer. Worked on first bringup ever of Unix on Motorola 68010 and 68020. Straddled the hardware and software camps to locate, explain, and solve design, implementation, and manufacturing problems. Pulled many chestnuts out of fires. Debugged Unix utilities, kernel, and device drivers. Diagnostics. Documentation. Electronic mail maintenance, support, and enhancement. Performance and code generation improvement. General technical support. Contributed to lively corporate culture.

1979-82 Independent Consultant, San Francisco

Consulting on APL and microcomputers. Design of an APL interpreter for the Motorola 68000. Design and Apple-II implementation of PCNet, a networking protocol for small micros. Design review of Motorola 68000.

Specification and design of an advanced APL language interpreter.

1977-79 Independent Consultant

APL applications and systems work on a contract basis.

1973-77 Scientific Time Sharing Corporation, Bethesda MD

Systems programming work, primarily enhancements to the APL interpreter (in IBM 370 Assembler), including 24-hour beeper duty supporting a large international timesharing system. Applications programming in APL, including customer applications, electronic mail, and utilities.

1972-73 Anniston City Schools, Anniston AL

Maintenance and extension of existing payroll, accounts payable, student registration, and student scheduling systems in IBM 1401 Autocoder, and conversion of the above to Burroughs 2500 COBOL.

PERSONAL SKILLS

I pay great attention to detail, and keep track of things until they are resolved. I notice problems, trace them back to their sources, and work to fix them there. I have a good facility for predicting the unexpected consequences of technical decisions. I work long hours when excited by what I'm doing. I'm not afraid to talk with people about potential problems or solutions. I test and document my products thoroughly. I know how to write and teach about technical subjects. I can plan, estimate, and execute a project. I also work well when interrupt-driven. I manage money well. I can lead and inspire a team.

LANGUAGES

C, APL, PL/1, COBOL, FORTRAN Assemblers: SPARC, 680x0, IBM 360/370, 6502, IBM 1130, IBM 1401

I have designed, implemented, and maintained interpreters, debuggers and assemblers; helped to debug and improve compilers, and participated in design reviews on instruction sets for the Motorola 68010 and 68020 and the Sun SPARC.

HARDWARE

Sun Workstations, IBM and Amdahl mainframes, IBM 1130 and 1401, Burroughs B2500/3500, Data General Eclipse, etc.

I can debug hardware and software using oscilloscopes, logic analyzers, simulators, ICEs, etc. I read schematics and chip specs. I've been an active participant in hardware evolution, formal design reviews, and diagnostics for various Sun products from the Sun-1 to the SPARCstation-2.

OPERATING SYSTEMS

Linux, BSD Unix, SunOS, IBM OS/MVT, VM/370, Data General AOS

I understand operating systems from interrupts and memory management all the way up through file systems, multitasking, networking, programmer interfaces, utilities, and user interfaces.

REFERENCES

- Andy Bechtolsheim -- Sun founder and chief hardware designer
- Bill Joy -- Sun founder and chief software designer
- Dave Farber -- Professor, U. of Pennsylvania
- Michael Tiemann -- Cygnus's first president, and co-founder
- John Barlow -- cognitive dissident, Electronic Frontier co-founder

REQUIREMENTS

<u>Challenge</u>: I am independently wealthy and take jobs because I am interested in the work. I desire challenging work with talented collaborators and minimum bureaucracy.

Equity: My main interest is in working on projects where I and my collaborators have a significant stake in the outcome. If a company is good enough to give my time to, I will probably want to invest in it, as well as sharing founders' or employees' equity.

Salary: Commensurate with responsibility.

Hours: Full time as an employee; full or part time as a consultant. I run a home network

(with T1 to the Internet) and frequently work at home.

<u>Vacation</u>: I like to take extended (several years) vacations periodically.

AFFIDAVIT OF SERVICE

STATE OF NEW YORK : COUNTY OF NEW YORK)

DONALD THORESEN, being duly sworn, deposes and says:

I am not a party to this action, am over eighteen years of age, and reside in Kings County, New York.

On May 2, 2000, I personally served the annexed declaration upon:

Leon Gold, Esq. Proskauer Rose LLP 1585 Broadway New York, New York 10036

by hand delivering a true copy of same to, and leaving it with, an employee of the above-named firm.

Donald Thoresen

Sworn to before me this 2nd day of May, 2000.

Notary Public

EDWARD HERNSTADT
Notary Public, State of New York
No. 31-4998196
Qualified in New York County
Commission Expires June 22, 199